December 20, 2007

To: **Interested Parties**

From: **Bay Area Air Quality Management District**

Subject: **Community Meeting regarding the Health Risk Assessment for Pacific Steel Casting Company**

Pacific Steel Casting Company (PSC) has prepared a health risk assessment (HRA) for its facility located at 1333 2nd Street in Berkeley in order to meet the requirements of the Air Toxics Hot Spots (ATHS) program. The Bay Area Air Quality Management District (District) is conducting a community meeting to discuss the HRA. The meeting will be held at 6:00 p.m., January 9, 2008 at the West Berkeley Senior Center located at 1900 6th Street.

The District and Cal/EPA's Office of Environmental Health Hazard Assessment (OEHHA) have reviewed the HRA report and have preliminarily determined that it was prepared in accordance with the statewide ATHS Health Risk Assessment Guidelines. PSC will present the HRA report and answer questions from the public. The District and OEHHA will present information and answer questions regarding the HRA and risk assessment procedures.

The HRA report contains a description of the ATHS risk assessment process, a comprehensive analysis of the emissions of toxic air contaminants (TACs) from PSC, an overview of air dispersion modeling, an evaluation of the potential for human exposure, and a quantitative assessment of potential health risks associated with modeled levels of exposure. The report includes tables that present detailed information about the sources and emissions of TACs, and figures that illustrate the facility's configuration, identify receptor locations, and characterize the magnitude of health risk at various offsite locations surrounding the facility.

The calculated maximum cancer risk resulting from routine emissions from PSC is 31 in a million for nearby offsite workers and 19 in a million for the maximally exposed residential receptor. Estimated cancer risk for this facility is primarily due to emissions of hexavalent chromium, arsenic, cadmium and nickel.

The calculated maximum chronic noncancer risk from this facility is a chronic hazard index of 1.8 for offsite workers and 0.48 for the maximally exposed residential receptor. The calculated maximum acute noncancer risk is an acute hazard index of 0.85. Adverse health effects are not expected to occur, even for sensitive members of the population, for hazard indices less than one. An exceedance of one does not indicate that adverse effects will occur, rather, it is an indication of the erosion of the margin of safety and that the likelihood of adverse health effects is increased. The majority of noncancer risk for PSC is due to emissions of manganese, nickel, cadmium, and formaldehyde.

Actual risk, which cannot be determined, is likely overestimated due to conservative exposure assumptions incorporated in the health risk calculations (e.g., assuming 70-year and 40-year exposure durations for calculating cancer risk for residential and worker receptors, respectively). In addition, health effects values that are used to calculate health risks are developed using statistical analysis and uncertainty factors that are health protective of sensitive receptors. This type of health risk analysis is considered health protective.

Cancer risk that exceeds 10 in a million triggers public notification requirements of the ATHS program in accordance with state statutes (Health & Safety Code §44361 & §44362). This notice, the community meeting, and the presentation of the HRA to the public satisfy the initial public notification requirements. PSC will be required to periodically provide updated information to the public.

PSC has implemented several voluntary risk reduction measures and is considering other risk mitigation measures that will also reduce emissions of odorous compounds.

In order to put the results of this HRA into perspective, here is some information for comparison purposes:

1) The risk of contracting cancer in the general population of the United States is about 1 in 3, or greater than 300,000 in a million.
2) Cancer risk calculated using Bay Area toxic ambient air monitoring data is estimated to be 125 in a million. In addition, diesel particulate matter in the ambient air is not directly measured but is estimated to pose a cancer risk of 500 in a million in the Bay Area.

The District provided copies of the HRA to the City of Berkeley and to the Berkeley Public Library for public review. Electronic copies may be obtained on DVD from the District or downloaded from: *http://www.baaqmd.gov/pmt/public_notices/2007/1603/index.htm*.

The public review and comment period commenced on October 11, 2007 and the District will accept comments on the HRA until **January 31, 2008**. Comments regarding the HRA and/or requests for the HRA report on DVD should be submitted to Scott Lutz, Manager of the Toxic Evaluation Section, by e-mail at slutz@baaqmd.gov or in writing to him at the following address:

Scott Lutz
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Air Toxics Hot Spots Program Overview

The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, Connelly, 1987) established a formal regulatory program for site-specific air toxics emissions inventory and health risk quantification that is managed by California air districts. Under this program, a wide variety of industrial, commercial, and public facilities are required to report the types and quantities of toxic substances their facilities routinely release into the air. The goals of the Air Toxics Hot Spots Program are to collect emissions data, to identify facilities with potential for localized health impacts, to ascertain health risks, to notify nearby residents of risks that are determined to warrant such notification, and to reduce significant risks.

There are five steps to implementing the ATHS program. Guidelines have been developed for all five steps to establish a consistent, science-based, methodology for implementing the program. The five steps are briefly described as follows:

- Air Toxics Emissions Inventory: Subject facilities are required to prepare and submit a comprehensive emissions inventory plan followed by a toxics emissions inventory report. Each facility's emissions inventory must be updated on a regular basis (in order to reflect changes in equipment, materials, and production levels at the facility).
- Prioritization: Each facility is prioritized for potentially significant health impacts based on the quantity and toxicity of emissions, and the proximity of nearby residents and workers.
- Health Risk Assessment: Facilities that are determined to be "high priority" are required to prepare a comprehensive HRA. The air district and Cal/EPA's Office of Environmental Health Hazard Assessment (OEHHA) review the HRA.
- Public Notification: If the health risks resulting from the facility's emissions exceed action levels established by the air district, the facility is required to perform notification to all exposed persons regarding the results of the HRA. The BAAQMD has established a cancer risk of 10 in a million as the ATHS public notification level.
- Risk Reduction: If the health risks resulting from the facility's emissions exceed significance levels established by the air district, the facility is required to conduct an airborne toxic risk reduction audit and develop a plan to implement measures that will reduce emissions from the facility to a level below the significance level within five years. The BAAQMD has established a cancer risk of 100 in a million as the ATHS mandatory risk reduction level.